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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/405,237	09/23/1999	JOHN K. RENWICK	IBN-0014	9267

24739 7590 11/03/2005

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EXAMINER

PHILPOTT, JUSTIN M

ART UNIT PAPER NUMBER

2665

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/405,237

Applicant(s)

RENWICK ET AL.

Examiner

Justin M. Philpott

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 13, 2005 has been entered.

Response to Arguments

2. Applicant's arguments filed October 13, 2005 have been fully considered but they are not persuasive.

3. Specifically, applicant argues (pages 4-5) that Cao does not teach a packet flow has an assigned unique LSP. This argument is not persuasive for two separate reasons. First, applicant's claims do not recite this limitation. Contrary to applicant's assertion, implicitly regarding applicant's independent claim 31, the claim recites "each packet flow may have a unique LSP" (emphasis added). Accordingly, applicant's claims do not recite that each packet flow does in fact have a unique LSP. Thus, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a packet flow has an assigned unique LSP) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26

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USPQ2d 1057 (Fed. Cir. 1993). Secondly, even if applicant's claim 31 were to be amended to recite that each packet flow does in fact have a unique LSP, applicant's argument would still not be persuasive because Cao clearly teaches each packet flow is provided with a unique LSP (e.g., see col. 9, lines 48-52 regarding "ERLSP ID 502, which provides a unique ID for the associated flow). Accordingly, applicant's argument is not persuasive.

4. Further, applicant argues that Cao does not teach the newly added limitation to the amended dependent claim 32. However, Cao teaches this limitation as discussed in the following office action.

Claim Objections

5. Claims 31 and 34 are objected to because of the following informalities: "node that" (claim 31, line 7; claim 34, line 6) should be changed to "node so that" or "node such that" or similar phrasing. Appropriate correction is required.

6. Claim 36 is objected to because it is a duplicate claim. Specifically, applicant amended claim 36 to depend upon claim 31. However, the identical limitations of claim 36 are also recited in claim 33 which is also dependent upon claim 31. Thus, claims 36 and 33 are identical. Appropriate correction is required, such as the cancellation of duplicate claim 36.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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8. Claims 32 and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

First, the phrase “between nodes” (claim 32, line 3; claim 35, line 3) is indefinite because it is unclear whether applicant is referring to each individual in the node path, to ingress or egress nodes, or to all of the previously mentioned nodes. Clarification in the claims is required.

Second, the use of the word “always” in the phrase “are not always equal” is unclear, since it appears to indicate that the method of steps (a) and (b) are repeated, whereby after one or more iterations the steps result in links between “nodes” which are in fact *not* equal in number, and after another one or more iterations the steps yield links between “nodes” which in fact are equal in number. However, the remaining language of claims 32 and 35, and their corresponding independent claims 31 and 34, does not indicate that steps (a) and (b) are performed a multiple number of times. Thus, the inclusion of the phrase “are not always equal” in claims 32 and 35 is unclear, since the phrase implies multiple iterations of steps (a) and (b) occur, whereas independent claims 31 and 34 indicate only a single instance of steps (a) and (b) occur. Accordingly, claims 32 and 35 are indefinite.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 31, 33, 34, 36 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S.

Patent No. 6,721,269 by Cao et al.

Regarding claim 31, Cao teaches in a data-packet network having a label-switching sub-network with one ingress node (e.g., LSRS, see FIG. 1) and one egress node (e.g., LSRE) (e.g., see also col. 8, lines 37-41), with at least two nodes (e.g., LSRA and LSRC) internal to the sub-network connected by a plurality of parallel links (e.g., see col. 6, lines 1-23), a method for routing packets through the sub-network and the parallel links while ensuring in-order delivery for unique packet flow defined by unique source/destination pairs, comprising the steps of: (a) creating a sufficient number of label-switched paths (LSPs) (e.g., S-A-B-E and S-C-D-E, see col. 6, lines 1-23) from the ingress node (e.g., LSRS) to the egress node (e.g., LSRE) so that each packet flow may have a unique LSP (e.g., see col. 6, lines 16-23; and col. 8, lines 37-41); and (b) associating each packet flow with one of the created LSPs (e.g., see col. 10, line 1 – col. 11, line 15 regarding primary ERLSP, S-A-B-E, comprising a selected flow, and a secondary or backup ERLSP comprising a protected/backup/secondary flow).

Regarding claim 33, Cao teaches adding a mask value (e.g., mask value 304, see col. 9, lines 14-19 and prior art FIG. 2) to a label value in the process of setting up an LSP may be implemented, and further, Cao teaches the LSPs are all created in response to a single signal (e.g., Label Request Message) sent from the ingress node (e.g., see col. 5, line 7 – col. 8, line 56).

Regarding claim 34, Cao teaches a routing system in a data-packet network having a label-switching sub-network with one ingress node (e.g., LSRS, see FIG. 1) and one egress node (e.g., LSRE) (e.g., see also col. 8, lines 37-41), with at least two nodes (e.g., LSRA and LSRC)

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internal to the sub-network connected by a plurality of parallel links (e.g., see col. 6, lines 1-23), the system comprising: a mechanism for creating a sufficient number of label-switched paths (LSPs) (e.g., S-A-B-E and S-C-D-E, see col. 6, lines 1-23) from the ingress node (e.g., LSRS) to the egress node (e.g., LSRE) so that each packet flow may have a unique LSP (e.g., see col. 6, lines 16-23; and col. 8, lines 37-41); and a mechanism for associating each packet flow with one of the created LSPs (e.g., see col. 10, line 1 – col. 11, line 15 regarding primary ERLSP, S-A-B-E, comprising a selected flow, and a secondary or backup ERLSP comprising a protected/backup/secondary flow).

Regarding claim 36, Cao teaches adding a mask value (e.g., mask value 304, see col. 9, lines 14-19 and prior art FIG. 2) to a label value in the process of setting up an LSP may be implemented, and further, Cao teaches the LSPs are all created in response to a single signal (e.g., Label Request Message) sent from the ingress node (e.g., see col. 5, line 7 – col. 8, line 56).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 32 and 35 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cao.

Regarding claims 32 and 35, Cao teaches the method and system discussed above regarding claims 31 and 34. Further, Cao teaches the number of LSPs created (e.g., two, S-A-B-

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E and S-C-D-E, see col. 6, lines 5-10) is equal to the least-common multiple of the number of links between each individual node in the node path (e.g., two, wherein each of nodes in node paths in FIG. 1 include at least two links, noting that LSRF is not included in node path).

Additionally, Cao teaches the number of links between nodes are not always equal (e.g., see col. 2, lines 48-67 regarding extending the general teachings of, e.g., FIG. 1, “to include a plurality of primary paths, with one or more secondary paths for each of the primary paths”; also see col. 11, lines 16-43 regarding Cao teaching the invention is not limited to the embodiment, e.g., of FIG. 1, “which does not limit the invention to the precise forms disclosed”, such as equal number of links; also, note that nowhere does Cao disclose requiring the number of links between nodes to be equal).

However, in the alternative, if the limitation of “the number of links between nodes are not always equal” is not inherently found in Cao, it is generally considered to be within the ordinary skill in the art to adjust, vary, select or optimize the numerical parameters or values of any system absent a showing of criticality in a particular recited value. The burden of showing criticality is on Appellant. In re Mason, 87 F.2d 370, 32 USPQ 242 (CCPA 1937); Marconi Wireless Telegraph Co. v. U.S., 320 U.S. 1, 57 USPQ 471 (1943); In re Schneider, 148 F.2d 108, 65 USPQ 129 (CCPA 1945); In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955); In re Saether, 492 F.2d 849, 181 USPQ 36 (CCPA 1974); In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to include a greater or fewer number of links between the various nodes of Cao since it is generally considered to be

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within the ordinary skill in the art to adjust, vary, select or optimize the numerical parameters or values of any system absent a showing of criticality in a particular recited value.

Conclusion

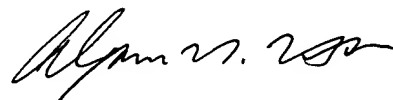
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M. Philpott whose telephone number is 571.272.3162. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on 571.272.3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Justin M Philpott



**ALPUS H. HSU
PRIMARY EXAMINER**